WHAT IS CLAIMED IS:

1. An index structure of metadata comprising:

a list of keys composed of predetermined fields of the metadata,

wherein the list contains therein location information of the fields in the metadata, and

wherein at least a part of the location information is expressed as a predetermined code.

2. The index structure as claimed in claim 1, further comprising values of the keys and identification information of the metadata corresponding to the values of the keys.

3. The index structure as claimed in claim 2, wherein the metadata comprises fragments divided by a predetermined range in a tree data structure, wherein a first field constituting a first key corresponds to any one of information constituting the fragments.

4. The index structure as claimed in claim 3, wherein the identification information of the metadata comprises identification information of the fragments.

5. The index structure as claimed in claim 3, wherein the location information comprises location information of a first fragment to which the first field constituting the first key belongs within the data structure and location information of the first field within the first fragment.

6. The index structure as claimed in claim 5, wherein either the location information within the data structure or the location information within the first fragment is expressed in a predetermined code.

7. The index structure as claimed in claim 5, wherein at least a part of the location information is expressed in XPath.

8. The index structure as claimed in claim 1, wherein the predetermined code is assigned in advance to the location information frequently used.

9. The index structure as claimed in claim 2, further comprising a representative key value representing a predetermined range of the values of the keys.

10. The index structure as claimed in claim 9, wherein the representative key value comprises at least one of a maximum value, a minimum value or an intermediate value among the values of the keys within the predetermined range.

11. The index structure as claimed in claim 1, wherein the metadata has a structure of metadata as defined in TVA.

12. A method for providing a metadata index including a list of keys composed of predetermined fields of the metadata, comprising:

providing the predetermined fields of the metadata to the list of the keys;

wherein the list includes location information of the fields in the metadata,

wherein at least a part of the location information is expressed with a predetermined code.

13. The method as claimed in claim 12, wherein the metadata index further comprises values of the keys and identification information of the metadata corresponding to the values of the keys.

14. The method as claimed in claim 13, wherein the metadata comprises fragments divided by a predetermined range in a tree data structure, wherein a first field constituting a first key corresponds to any one of information constituting the fragments.

15. The method as claimed in claim 14, wherein the identification information of the metadata comprises identification information of the fragments.

16. The method as claimed in claim 14, wherein the location information comprises location information of a first fragment to which the first field constituting the first key belongs within the data structure and location information of the first field within the first fragment.

17. The method as claimed in claim 14, wherein either the location information within the data structure or the location information within the first fragment is expressed in the predetermined code.

18. The method as claimed in claim 16, wherein at least a part of the location information is expressed in XPath.

19. The method as claimed in claim 12, wherein the predetermined code is assigned in advance to the location information frequently used.

20. The method as claimed in claim 13, wherein the metadata index further comprises a representative key value representing a predetermined range of the values of the key.

21. The method as claimed in claim 20, wherein the representative key value comprises at least one of a maximum value, a minimum value or an intermediate value among the values within the predetermined range.

22. The method as claimed in claim 12, wherein the metadata has a structure of metadata as defined in TVA.

23. A method of searching metadata, comprising the steps of:

(i) determining location information of a field of search conditions input by a user, in the metadata;

(ii) searching a key containing a predetermined code as location information, where at least a part of the location information is defined as the predetermined code; and

(iii) extracting a concerned metadata by use of the searched key.

24. The method as claimed in claim 23, wherein a metadata index comprises values of the key and identification information of the metadata corresponding to the values of the key.

25. The method as claimed in claim 24, wherein the metadata comprises fragments divided by a predetermined range in a tree data structure, wherein the field constituting the key corresponds to any one of information constituting the fragments.

26. The method as claimed in claim 25, wherein the identification information of the metadata comprises identification information of the fragments.

27. The method as claimed in claim 25, wherein the location information comprises location information of a fragment to which the field constituting the key belongs within the data structure and location information of the field within the fragment.

28. The method as claimed in claim 27, wherein either the location information within the data structure or the location information within the fragment is expressed in the predetermined code.

29. The method as claimed in claim 27, wherein at least a part of the location information is expressed in XPath.

30. The method as claimed in claim 23, wherein the predetermined code is assigned in advance to the location information frequently used.

31. The method as claimed in claim 24, wherein the metadata index further comprises a list of keys.

32. The method as claimed in claim 24, wherein the metadata index further comprises a representative key value representing a predetermined range of the values of the key.

33. The method as claimed in claim 32, wherein the representative key value comprises at least one of a maximum value, a minimum value or an intermediate value among the values within the predetermined range.

34. The method as claimed in claim 23, wherein the metadata has a structure of metadata as defined in TVA.

35. The method as claimed in claim 28, wherein the step (ii) of searching the key comprises the step of searching the key containing the predetermined code defined as location information in a key list where (a) location information in the data structure or (b) location information in the fragment is defined with the predetermined code.

36. The method as claimed in claim 35, the step (iii) of extracting the metadata comprises the steps of:

(iii-1) searching a value of the key meeting the input search conditions among the values of the key to be indexed by the searched key; and

(iii-2) extracting the concerned metadata by use of the searched value of the key.

37. The method as claimed in claim 36, wherein the step (iii-1) of searching a value of the key meeting the input search conditions among the values of the key to be indexed by the searched key comprises the steps of:

searching a representative key value meeting the input search conditions; and

searching the value of the key meeting the input search conditions among the values of the key in a range represented by the representative key value.

38. An apparatus for searching metadata, comprising:

an input unit allowing a user to input search conditions; and

a control unit determining location information of a field of the search conditions input by the user, in the metadata, searching a key containing a predetermined code as location information, where at least a part of the location information is defined as the predetermined code, and extracting the concerned metadata by use of the searched key.

39. The apparatus as claimed in claim 38, wherein a metadata index comprises values of the key and identification information of the metadata corresponding to the values of the key.

40. The apparatus as claimed in claim 39, wherein the metadata comprises fragments divided by a predetermined range in a tree data structure, wherein the field constituting the key corresponds to any one of information constituting the fragments.

41. The apparatus as claimed in claim 40, wherein the identification information of the metadata comprises identification information of the fragments.

42. The apparatus as claimed in claim 40, wherein the location information comprises location information of a first fragment to which the field constituting the key belongs within the data structure and location information of the field within the first fragment.

43. The apparatus as claimed in claim 42, wherein either the location information within the data structure or the location information within the first fragment is expressed in the predetermined code.

44. The apparatus as claimed in claim 42, wherein at least a part of the location information is expressed in XPath.

45. The apparatus as claimed in claim 38, wherein the predetermined code is assigned in advance to the location information frequently used.

46. The apparatus as claimed in claim 39, wherein the metadata index further comprises a list of keys.

47. The apparatus as claimed in claim 39, wherein the metadata index further comprises a representative key value representing a predetermined range of the values of the key.

48 The apparatus as claimed in claim 47, wherein the representative key value comprises at least one of a maximum value, a minimum value or an intermediate value among the values within the predetermined range.

49. The apparatus as claimed in claim 38, wherein the metadata has a structure of metadata as defined in TVA.

50. The apparatus as claimed in claim 43, wherein the control unit searches the key containing the predetermined code defined as location information, in the key list, where (a) location information in the data structure or (b) location information in the first fragment is defined with the predetermined code.

51. The apparatus as claimed in claim 50, wherein the control unit searches the value of the key meeting the input search conditions among the values of the key to be indexed by the searched key, and extracts the concerned metadata by use of the value of the searched key.

52. The apparatus as claimed in claim 51, wherein the control unit searches a representative key value meeting the input search conditions, and searches the value of the key meeting the input search conditions among the values of the key in a range represented by the representative key value.

53. The apparatus as claimed in claim 38, further comprising:

a receiving unit receiving metadata;

a storage unit storing therein the received metadata; and

an output unit outputting the search result by the control unit.